Wright (J.)

Nasal Papillomata.

BY

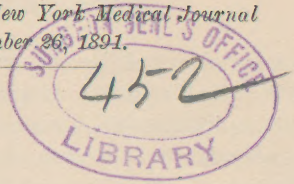
JONATHAN WRIGHT, M.D.

REPRINTED FROM

The New York Medical Journal

for December 26, 1891.

Reprinted from the New York Medical Journal for December 26, 1891.



NASAL PAPILLOMATA.*

By JONATHAN WRIGHT, M. D.

At the last meeting of this association, in the discussion which followed the reading of Dr. Ingal's paper on Warty Growths in the Nose, I was encouraged to hear the majority of the members protest against Hopmann's declaration of the relative frequency of papillomata within the nasal fossæ. Out of several hundred nasal tumors and hypertrophies removed it had been my fortune to see but one case of what I regarded as a nasal papilloma. This was a small tumor with velvet-like papillæ, about half the size of a split pea, growing at a point above the center of the cartilaginous sæptum in the left nasal fossa. It was cauterized thoroughly, and I did not see the case again. Of course, a diagnosis from gross appearances, as subsequent experience has taught me in such cases, is little better than conjecture.

Shortly after this Hopmann's (1) statement came under my observation, and I supposed with others that these tumors must have been overlooked and regarded as polypi and hypertrophies. Supported by Morell Mackenzie's (2)

* Read before the American Laryngological Association at its thirteenth annual congress.

half admission and by the acquiescence of Schech (3), Schäffer (4), Krause (5), Moldenhauer (6), Chiari (7), Juraz (8), and Bayer (9), it seemed as though many of us had been very lax and careless observers. A careful perusal of Hopmann's original paper, however, convinced me that he differed really more radically from histologists and pathologists than he did from clinical observers. The discrepancy was one of terminology, not of rhinology.

One of the first patients I saw after I returned from Baltimore last year was a case of subglottic tumor, in which there were similar appearing growths on both sides of the sæptum, on both inferior turbinated bones and the floor of the nose anteriorly, on the naso-pharyngeal surface of the soft palate, and a double one just where the vomer articulates with the body of the sphenoid bone on the roof of the naso-pharynx. This case, which was interesting in other respects, I reported last May at the meeting of the American Medical Association. It was thought that this was a case of typical papilloma. It really was an almost unique case of papillary lymphoid hypertrophy (lymphoma). The small fragments removed from the nose were too much broken and torn to make a safe microscopical diagnosis, but they apparently differed in no way from the subglottic growth.*

Lacoarret (10) speaks of two cases which had every aspect of papillomata to the naked eye, but which nevertheless, on microscopic examination, proved to be hypertrophies of the mucous membrane and granulation tissue. He reiterates the assertion, as does Moure (11), that "nasal papillomata are very rare." The latter observer, in whose

* I have recently seen this patient. There has been no recurrence either in the nose or larynx since the last endolaryngeal and intranasal operations—about eight months. My fears of sarcoma are thus far unrealized, for, though aphonic, she is recently married and happy.

service the two cases cited by Lacoarret occurred, said, before the microscopic examination: "Now or never."

Noquet (12), of Lille, who had previously reported a true case of nasal papilloma, published the account of a tumor removed from the nasal fossa which he regarded as a papilloma. On inquiry as to the result of the subsequent microscopic examination by Dr. Laurent de Hal, Dr. Noquet was kind enough to inform me by letter that "the tumor in question is composed of a *mucous tissue* covered by cylindrical epithelium and developed in the form of papillary projections." He adds: "The examination of Dr. Laurent has consequently had the same result as those practiced by you, and, as you say, the tumor proved deceptive. It is very certain, however, that this tumor had not the macroscopic appearance ordinarily seen in mucous polypi, and that it was not attached at the place where the latter are usually formed." . . .

When Virchow (13) announced his "terminological wrath" at the confusion which had arisen from the loose way in which laryngologists had used the word papilloma, he might also have reviewed with regret some of his own words. The father of modern pathology, in his great work (*Die krankhaften Geschwülste*, 1863, Bd. 1, p. 334), said:

"Papilla formation is not merely a hypertrophy, as is ordinarily said, or an excess of normal papilla formation, as though in each case the pathological papilla had grown from a pre-existing physiological one, but every surface can independently for itself produce papillæ even in places where previously no papillæ existed. . . . Little cellular buds may begin on the surface free from papillæ or on the papillæ themselves and grow into full-sized papillæ. After the cellular growth has reached a certain point there is developed, springing from beneath it, a vascular loop. This may be supported by a very small amount of connective

tissue, so that it seems simply a loop of a vessel covered by epithelium, or the connective tissue may be well marked."

Certainly no clearer or more exact description could be given of any growth, and in regard to the name he says (p. 341): "The generic name must be fibroma, and papillary can only be used as an adjective addition."

This is eminently satisfactory, but in his *Cellular Pathology* (translated by Chance) he says, after referring to modifying adjective terms as applied to tumors, as colloid cancer, etc.: "In just the same manner we see that a great number of tumors, when they are seated on the surface, give rise to excrescences which, according to the nature of the surface, appear in the form of villi, papillæ, or warts. All these tumors may be comprised under one head and be called papillomata (!), but the tumors which have this form often differ, *toto cœlo*, from one another."

Further on in the same work he says: "The pathological importance of papillary tumors is, at least so far as I know, determined by the condition of their basement substance, or by that of the parenchyma of the villi themselves."

It would be irreverent to even suspect a confusion of ideas evinced by such contradictory words, but it may thus be easily seen that his "terminological wrath" at the laryngologists in general is not entirely consistent, although Hopmann's stretch of the term papilloma to include everything with a papillary surface, without regard to its parenchyma, or basement substance, or pathogenesis, is certainly well deserving of some kind of wrath from somebody. The gist of the matter is, when carefully considered, that papilloma as a generic term should be abolished. It is a surface phenomenon and not a good criterion of the much more important condition of the basement substance or of the parenchyma of the tumor. It is probably impossible to ex-

clude the term, but it certainly is possible to confine it to its most striking exemplification—papillary fibroma.

Virchow's terms of "pachydermia verrucosa" and "hard warts," while very welcome additions to our pathological nomenclature, do not cover all the ground desirable, since the majority of laryngeal papillary tumors can not be put under these terms, as defined by him.

Birch-Hirschfeld (14), Rindfleisch (15), and Klebs (16) give practically the same idea of a papilloma, but no one approaches the luminous exactness of Virchow's early description quoted above.

Cornil and Ranvier (17), under the head of Papillary Polypi, say: "Among polypi of the nasal fossæ there are some which are truly papillomata. They are formed of numerous composite papillæ, pressed one against the other, or contained within a common epithelial investment. The stroma is fibrous and vascular, slight in quantity, while the epithelial investment is thick and composed of pavement cells."

Wolfenden and Martin (18) say that the epithelium does not dip down into the fibrous core in finger-like projections, making this one of their diagnostic points between papilloma and epithelioma. This, of course, can not be accepted as it is written, and apparently the authors mean that such digitations must not be *actually* isolated from the surface epithelium and infiltrate the stroma. As a matter of fact, these finger-like projections from proliferation of the epithelium are very common. It is hardly probable that they mean to assert the contrary. Otherwise their description tallies with that of other observers. Nearly, though not quite, all pathologists agree that the epithelium, however much proliferation there may be, must be sharply defined from the connective tissue, and a structureless limiting membrane is often described. Virchow especially dwells on this

as the distinguishing point between papilloma and epithelioma.

Elsberg (19), however, following Heizman, says that in most cases it is very difficult to tell where the connective tissue begins and the epithelium leaves off. While not pretending to any great expertness in histological examination, the writer has examined many sections with a high-power oil-immersion lens where it was impossible to make out any structureless limiting membrane, and in some perfectly benign cases no distinct line could be drawn where the epithelial and connective-tissue cells met. Still, practically, with an ordinary objective, there is no difficulty in differentiating the two, excepting within extremely narrow limits. It is unnecessary to go into the very minute histology of papillomata further. Elsberg's description of many years ago is still very instructive, while the more recent description of Klebs is exhaustive and admirable.

It certainly would seem as though all these authorities were sufficiently concise and clear, with Virchow at the head, in limiting the designation of papilloma at least to papillary fibromata. Even this concession, as we have seen, has its very grave disadvantages and inconsistencies, but to extend it to practically all tumors with a papillary surface is unnecessary, and sure to result, as it has, in dire confusion.

It may be unnecessary and a tiresome repetition before members of this association, but I can not refrain, for the sake of illustration, from quoting Hopmann's description of the appearances of the tumor in his first case. After giving dimensions, etc., he says:

"The upper and lateral (convex) surface is divided by fifteen deeply marked transverse furrows and several longitudinal furrows into separate papillæ, the most anterior of which are again divided into smaller papillæ. Sections stained with mala-

chite green and examined in glycerin with +60 magnifying power show the cylindrical and glandular epithelium stained deep green, so that it is easy to distinguish the individual parts of the tumor from one another. First, the richness of the invariably dilated glandular acini and their canals is apparent. Glandular clusters, such as are observed in the normal mucous membrane of the turbinated bones crowded thick together and many branched, are found in sparing numbers here and there, and then only with hypertrophied acini looking swollen and dilated. Most often one observes round or oval rings lined with a simple layer of stretched epithelium. In the deeper layers of the tumor these rings are often lengthened out and irregularly dilated, here and there widened out to cavities of very irregular conformation, whose walls are no longer covered with cylindrical epithelium, but frequently, when the epithelium is not entirely lacking, lined with smaller cells. Some of these lacunæ are filled full of blood-corpuscles; others are empty. Near these glandular ectasiæ the rich network of blood-vessels is strikingly observed, from which dilated branches ascend toward the papillæ and nearly to the epithelial covering, with many anastomoses, and branches sometimes curved into loops. The stroma is formed into a fine network, whose radiating branches stretch out to the surface of the papillæ. Between these bundles of fibers, often arranged parallel, are imbedded round cells, thickly crowded together, which can hardly be distinguished in form and size from round, young epithelial cells, such as one finds in the deeper layers of the cylindrical epithelium covering the papillæ with their sac-like contours. The epithelium agrees in form and size with those of the dilated glands.

"*Diagnosis.*—Adenoma papillare."

If Hopmann had afterward called these growths adenomata instead of speaking of them under the generic name of papilloma, there would have been less cause for complaint, although the writer believes that these growths are nothing more than simple hypertrophies with the glands and blood-vessels dilated and distorted in the process of chronic inflammation, with the epithelial covering prolifer-

ated, stretched, distorted, and folded on itself, crumpled, as it were, by the pressure of its confined quarters, by the irregular distention of the glands and blood-vessels, and by the uneven hyperplasia of the connective tissue beneath.

The glandular ectasia in these tumors is striking. The tumors themselves without the papillary surface are very common, while with the papillary or crumpled surface seen in a lesser degree in the so-called mulberry hypertrophies they are not at all rare. Such growths may possibly be on the border line between simple hypertrophy and adenoma, for it is impossible to say that there is not a new production of glandular growth, but to give it the name of papilloma, without a description of the epithelial cells lining the papillæ, of the thickness of their layers, of their proliferation, of the basement membrane, etc., but apparently on account of the surface being covered with elevations separated from one another by parallel and crossed lines, a purely macroscopic phenomenon, is certainly a most extraordinary proceeding for a zealous worker and a good observer, and especially for a fellow-countryman of Virchow and his *confrères*. He himself says: "If one takes as a criterion the pathological reproduction of the physiological papilla (Förster, Rindfleisch, Birch-Hirschfeld), of course such papillary growths can not be regarded as papillomata."

Thost (20), in his very excellent paper, while being disposed to agree with Hopmann, also says: "If, however, one only recognizes as papillomata the epithelial proliferations with connective-tissue digitations growing in them, Hopmann's papillary tumors are not true papillomata, but adenomata—as, in fact, he describes them. It appears to me that in these cases we have to do with a glandular hyperplasia, and that the subjacent epithelium has greatly proliferated from the irritation beneath, and has itself grown

out into digitations. . . . I repeat, the glandular and vascular development in these tumors seems to be the principal thing, and I think the dictum may be allowed to remain: 'True papillomata are rare in the nose.'"

If we are to allow adenomata to be called papillomata, why not certain cases of cancer, syphilis, tubercular growths? These and other pathological processes on the mucous membrane often have true *papillæ* on their surfaces, while the papillary hypertrophies in the nose have only the macroscopic *resemblance* of papillæ on their surfaces. Moreover, there are all grades of this furrowing and folding of the surface epithelium. Where are we to begin to call them papillomata?

Rarely, but undoubtedly, there are instances of true papillary fibromata growing in the nose. They differ in about every possible histological way from papillary adenomata. They are the tumors almost universally called papillomata. Why give the same name to two totally different pathological formations?

It may seem that I dwell a little strongly on this point but one appreciates the importance of it when such good observers and distinguished authors as Sir Morell Mackenzie and Dr. Bosworth seem inclined to accept Hopmann's statements apparently from a misapprehension of what he calls papilloma, while the confusion which has arisen elsewhere is a natural but unfortunate sequel to the acceptance of the term in Hopmann's sense of the word.

I present here a drawing made by Dr. Hodenpyl, from a section in my possession of a growth removed from the nasal fossa by Dr. Knight, in a case of hypertrophy of the middle and inferior turbinated bones in which there were also a number of ordinary mucous polypi. Unfortunately, Hopmann has given us no illustration of the microscopic appearances of the growths so graphically and accurately

described by him. A glance at this drawing will show, it seems to me, that it is the analogue of the first case de-

scribed by Hopmann and quoted above. It will be seen that the investing epithelium, convoluted and folded on itself, forms a fair imitation of true papillæ when not examined too closely or too critically. The pathogenesis is, however, I believe, entirely different, and the histological distinction perfectly recognizable from a true papilloma. I regret I have no good example of a nasal papillary fibroma to compare with it.

Hopmann said he had seen fourteen of the growths out of one hundred cases of nasal tumors, and again six out of twenty-five (21), while Schäffer (22) has seen twenty out of one hundred and eighty-two. These proportions are not at all surprising and will probably correspond fairly well with every one's observation.

It is impossible to say how many cases of true nasal papilloma have been observed. Doubtless some of those so reported were not papillary fibromata. It is certain that only those which have been examined microscopically can be accurately classified, though some had every macroscopic appearance of a true papilloma. They evidently have a preference for the cartilaginous sæptum and the floor of the nose, while Hopmann's growths are more frequently reported on the turbinated bones, especially the inferior, the most frequent site of hypertrophies.

Mackenzie (23), after his great experience, says he has only met with five cases of what he regards as papillomata; Bosworth (24), only one out of two hundred. Warts just within the vestibule are comparatively common, and are probably analogous to the pachydermia laryngis of Virchow and the hard warts of the skin. They owe their ætiology doubtless to the irritation of the finger nail and the flow of secretions. The neighborhood of all muco-cutaneous junctions is the favorite seat of epithelial proliferations—benign, specific, and malignant. I have in my possession micro-

scopic sections of one removed from the convex surface of a deviated sæptum just within the columna.

Michel (25) is commonly credited with reporting the first case of nasal papilloma.

Zuckerkandl's (26) case is also well known. As neither of these were examined microscopically, they can only be regarded as *probable* instances.

The two cases of Aysaguer (27), although more satisfactory, may also be placed in the same category.

Butlin (28) reports a case of nasal papilloma and rejects Hopmann's classification.

Verneuil's (29) remarkable and unique case is only paralleled by the exuberance with which papilloma occasionally recurs in the larynx and in the bladder after operation. Noquet's first case was questioned by Moure, Ruault, and Chatellier, but he stated in his letter to me that a microscopic examination proved its genuineness. His second case, as stated above, was a polypus.

Solis-Cohen (30) reported a case combined with a similar growth in the larynx.

Cozzolino's (31) two cases appear genuine, but were not examined microscopically.

The case reported by Dr. Mulhall, of St. Louis, before this association last year, he informs me, was proved by microscopic examination to be a genuine papilloma. It will be understood, of course, that I have not attempted to give any complete list of nasal papillomata. This would be impossible from the confusion in nomenclature and diagnosis. The cases mentioned are principally those most frequently referred to in treatises on the subject.

Several other members of this association mentioned a few cases that had come under their observations (32). There is no special interest attached to their symptomatology or treatment that is not too well known to bear repetition.

In conclusion, in order to know more of these growths, it would give me great pleasure to make a microscopical examination and return stained sections of any nasal papillary growth removed by any one interested in the subject. If the operator will put the specimen for twenty-four hours into eighty-per-cent. and then into absolute alcohol, and send it to me with a short history, I will return the sections by mail.

Bibliography.

1. Hopmann. *Archiv f. path. Anat. u. Physiol. u. f. klin. Med.*, No. 93, 1883, p. 213.

2. Mackenzie. *Diseases of the Throat and Nose*, 1884, vol. ii, p. 377.

3. Schech. *Krankeiten der Mundhöhle*, etc., 1888, p. 267.

4. Schäffer. Quoted by Hopmann in *Wien. med. Presse*, 1883.

5. Krause. Quoted by Hopmann in *Wien. med. Presse*, 1883.

6. Moldenhauer. Quoted by Hopmann in *Wien. med. Presse*, 1883.

7. Chiari, O. *Rev. mens. de laryngologie*, No. 3, Mar., 1886, p. 121.

8. Juraz. *Die Krankheiten der oberen Luftwege*, 1890, p. 90.

9. Bayer. Quoted by Hopmann in *Wien. med. Presse*, 1883.

10. Lacoarret. *Rev. mens. de laryngologie*, No. 17, 189, p. 497 *et seq.*

11. Moure. Ref. in *Ctrlbl. für Laryngologie*, 1889–1890, p. 324.

12. Noquet. *Rev. de laryngologie*, etc., No. 11, June 1, 1891, p. 339; and No. 13, 1 Juli 1889, p. 369.

13. Virchow. *Berl. klin. Woch.*, 1887, No. 32, August 8th, *et al.*

14. Birch-Hirschfeld. *Lehrbuch der path. Anat.*, p. 169, Bd. i, 1889.

15. Rindfleisch. *Lehrbuch der path. Gewebelehre*, 1886, p. 406.

16. Klebs. *Allgemeine Pathologie*, ii, p. 603.

17. Cornil and Ranvier. *Manuel d'histologie pathologique*, ii, p. 36.

18. Wolfenden and Martin. *Studies in Path. Anatomy.*

19. Elsberg. *Archives of Laryngology*, vol. i, p. 1, 1880.

20. Thost. *Deutsch. med. Woch.*, No. 21, 1890, p. 441.

21. Hopmann. *Wien. med. Presse*, 1883, p. 1227.

22. Schäffer. *Loc. cit.*

23. Mackenzie. *Loc. cit.*

24. Bosworth. *Diseases of the Nose and Throat*, 1890, p. 422.

25. Michel. *Krankheiten der Nasenhöhle*, translated by Shirley, p. 72.

26. Zuckerkandl. *Anatomie der Nasenhöhle*, p. 70.

27. Aysaguer. *Annales des maladies de l'oreille*, etc., No. v, 1885, p. 335.

28. Butlin. *St. Bartholomew's Hospital Reports*, 1885, p. 150.

29. Verneuil. *Bull. et mém. de la Société de chirurgie de Paris*, No. 12, 1886, p. 658.

30. Solis-Cohen. *Rev. de laryngologie*, 1889, p. 151.

31. Cozzolino. *Revista clinica e terapeutica*, No. 2, February, 1887, p. 75.

32. *Trans. of the Am. Laryng. Assoc.*, 1890.

REASONS WHY

Physicians should Subscribe

— FOR —

The New York Medical Journal,

EDITED BY FRANK P. FOSTER, M. D.,

Published by D. APPLETON & CO., 1, 3, & 5 Bond St.

1. BECAUSE: It is the *LEADING JOURNAL* of America, and contains more reading-matter than any other journal of its class.
2. BECAUSE: It is the exponent of the most advanced scientific medical thought.
3. BECAUSE: Its contributors are among the most learned medical men of this country.
4. BECAUSE: Its "Original Articles" are the results of scientific observation and research, and are of infinite practical value to the general practitioner.
5. BECAUSE: The "Reports on the Progress of Medicine," which are published from time to time, contain the most recent discoveries in the various departments of medicine, and are written by practitioners especially qualified for the purpose.
6. BECAUSE: The column devoted in each number to "Therapeutical Notes" contains a *résumé* of the practical application of the most recent therapeutic novelties.
7. BECAUSE: The Society Proceedings, of which each number contains one or more, are reports of the practical experience of prominent physicians who thus give to the profession the results of certain modes of treatment in given cases.
8. BECAUSE: The Editorial Columns are controlled only by the desire to promote the welfare, honor, and advancement of the science of medicine, as viewed from a standpoint looking to the best interests of the profession.
9. BECAUSE: Nothing is admitted to its columns that has not some bearing on medicine, or is not possessed of some practical value.
10. BECAUSE: It is published solely in the interests of medicine, and for the upholding of the elevated position occupied by the profession of America.

Subscription Price, $5.00 per Annum. Volumes begin in January and July.